

ABSTRACT

THESIS: An Analysis of Hurricane Seasons in the Pre-HURDAT Era (1751-1850)

STUDENT: Steven A. LaVoie

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COLLEGE: Science and Humanities

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An extensive database of the tracks of tropical cyclones in the North Atlantic Ocean since 1851 is known as the North Atlantic Hurricane Database (HURDAT). While this database is valuable to public and private agencies, many of the deadliest hurricanes on record occurred prior to 1851. This study will address the research problem of the availability of historical information and the feasibility of collecting data and producing historical tropical cyclone tracks. This thesis describes a methodology for identifying tropical cyclones that existed during the one hundred year period from 1751-1850 referred to as the “pre-HURDAT era” in this study. Uncovering historical tropical cyclone tracks are important for researchers seeking long term patterns in the climate record. This study is a synthesis of all readily available historical data which can be used to identify the tracks of documented tropical cyclones that occurred during the pre-HURDAT era. To emphasize the applicability of historical hurricane tracks, a study comparing landfall patterns of landfalling east coast hurricanes was also done. These tracks were analyzed using historical chronologies, ship data, and other “regional literature”.